

WHAT IS CLAIMED IS:

- 1 1. An isolated polynucleotide, comprising a nucleic acid sequence selected from the group
- 2 consisting of:
- 3 a) a polynucleotide of SEQ ID NO:3, or of a human cDNA of deposited clone 181-40-4-
- 4 0-A11-F, encoding at least any single integer from 6 to 500 amino acids of SEQ ID
- 5 NO:4;
- 6 b) a polynucleotide of SEQ ID NO:3, or of a human cDNA of deposited clone 181-40-4-
- 7 0-A11-F, encoding the signal peptide sequence of SEQ ID NO:4;
- 8 c) a polynucleotide of SEQ ID NO:3, or of a human cDNA of deposited clone 181-40-4-
- 9 0-A11-F, encoding a mature polypeptide sequence of SEQ ID NO:4;
- 10 d) a polynucleotide of SEQ ID NO:3, or of a human cDNA of deposited clone 181-40-4-
- 11 0-A11-F, encoding a full length polypeptide sequence of SEQ ID NO:4;
- 12 e) a polynucleotide of SEQ ID NO:3, or of a human cDNA of deposited clone 181-40-4-
- 13 0-A11-F, encoding a polypeptide sequence of a biologically active fragment of SEQ
- 14 ID NO:4;
- 15 f) a polynucleotide encoding a polypeptide sequence of at least any single integer from 6
- 16 to 500 amino acids of SEQ ID NO:4 or of a polypeptide encoded by a human cDNA
- 17 of deposited clone 181-40-4-0-A11-F;
- 18 g) a polynucleotide encoding a polypeptide sequence of a signal peptide of SEQ ID
- 19 NO:4 or of a signal peptide encoded by a human cDNA of deposited clone 181-40-4-
- 20 0-A11-F;
- 21 h) a polynucleotide encoding a polypeptide sequence of a mature polypeptide of SEQ ID
- 22 NO:4 or of a mature polypeptide encoded by a human cDNA of deposited clone 181-
- 23 40-4-0-A11-F;
- 24 i) a polynucleotide encoding a polypeptide sequence of a full length polypeptide of SEQ
- 25 ID NO:4 or of a mature polypeptide encoded by a human cDNA of deposited clone
- 26 181-40-4-0-A11-F;
- 27 j) a polynucleotide encoding a polypeptide sequence of a biologically active polypeptide
- 28 of SEQ ID NO:4, or of a biologically active polypeptide encoded by a human cDNA
- 29 of deposited clone 181-40-4-0-A11-F;
- 30 k) a polynucleotide of any one of a) through j) further comprising an expression vector;
- 31 l) a host cell recombinant for a polynucleotide of a) through k) above;
- 32 m) a non-human transgenic animal comprising the host cell of k); and
- 33 n) a polynucleotide of a) through j) further comprising a physiologically acceptable
- 34 carrier.

- 1 2. A polypeptide comprising an amino acid sequence selected from the group consisting of:
 - 2 a) any single integer from 6 to 500 amino acids of SEQ ID NO:4 or of a polypeptide
 - 3 encoded by a human cDNA of deposited clone 181-40-4-0-A11-F;
 - 4 b) a signal peptide sequence of SEQ ID NO:4 or encoded by a human cDNA of
 - 5 deposited clone 181-40-4-0-A11-F;
 - 6 c) a mature polypeptide sequence of SEQ ID NO:4 or encoded by a human cDNA of
 - 7 deposited clone 181-40-4-0-A11-F;
 - 8 d) a full length polypeptide sequence of SEQ ID NO:4 or encoded by a human cDNA of
 - 9 deposited clone 181-40-4-0-A11-F; and
 - 10 e) a polypeptide of a) through d) further comprising a physiologically acceptable carrier.
- 1 3. A method of making a polypeptide, said method comprising:
 - 2 a) providing a population of host cells comprising the polynucleotide of claim 1;
 - 3 b) culturing said population of host cells under conditions conducive to the production of
 - 4 a polypeptide of claim 2 within said host cells; and
 - 5 c) purifying said polypeptide from said population of host cells.
- 1 4. A method of making a polypeptide, said method comprising:
 - 2 a) providing a population of cells comprising a polynucleotide encoding the polypeptide
 - 3 of claim 2, operably linked to a promoter;
 - 4 b) culturing said population of cells under conditions conducive to the production of said
 - 5 polypeptide within said cells; and
 - 6 c) purifying said polypeptide from said population of cells.
- 1 5. An antibody that specifically binds to the polypeptide of claim 2.
- 1 6. A method of binding a polypeptide of claim 2 to an antibody of claim 5, comprising contacting
 - 2 said antibody with said polypeptide under conditions in which antibody can specifically bind to
 - 3 said polypeptide.
- 1 7. A method of determining whether a SCP_{hx} gene is expressed within a mammal, said method
 - 2 comprising the steps of:
 - 3 a) providing a biological sample from said mammal;
 - 4 b) contacting said biological sample with either of:
 - 5 i) a polynucleotide that hybridizes under stringent conditions to the
 - 6 polynucleotide of claim 1; or
 - 7 ii) a polypeptide that specifically binds to the polypeptide of claim 2; and

8 c) detecting the presence or absence of hybridization between said polynucleotide
9 and an RNA species within said sample, or the presence or absence of binding
10 of said polypeptide to a protein within said sample;
11 wherein a detection of said hybridization or of said binding indicates that said SCPhx gene is
12 expressed within said mammal.

1 8. The method of claim 7, wherein said polynucleotide is a primer, and wherein said hybridization
2 is detected by detecting the presence of an amplification product comprising the sequence of
3 said primer.

1 9. The method of claim 7, wherein said polypeptide is an antibody.

1 10. A method of determining whether a mammal has an elevated or reduced level of a SCPhx gene
2 expression, said method comprising the steps of:
3 a) providing a biological sample from said mammal; and
4 b) comparing the amount of the polypeptide of claim 2, or of an RNA species
5 encoding said polypeptide, within said biological sample with a level
6 detected in or expected from a control sample;
7 wherein an increased amount of said polypeptide or said RNA species within said biological
8 sample compared to said level detected in or expected from said control sample indicates that
9 said mammal has an elevated level of said SCPhx gene expression, and wherein a decreased
10 amount of said polypeptide or said RNA species within said biological sample compared to said
11 level detected in or expected from said control sample indicates that said mammal has a reduced
12 level of said SCPhx gene expression.

1 11. A method of identifying a candidate modulator of a SCPhx polypeptide, said method
2 comprising:
3 a) contacting the polypeptide of claim 2 with a test compound; and
4 b) determining whether said compound specifically binds to said polypeptide;
5 wherein a detection that said compound specifically binds to said polypeptide indicates that said
6 compound is a candidate modulator of said SCPhx polypeptide.

1 12. The method of claim 11, further comprising testing the biological activity of said SCPhx
2 polypeptide in the presence of said candidate modulator, wherein an alteration in the biological
3 activity of said SCPhx polypeptide in the presence of said compound in comparison to the
4 activity in the absence of said compound indicates that the compound is a modulator of said
5 SCPhx polypeptide.

- 1 13. A method for the production of a pharmaceutical composition comprising
2 a) identifying a modulator of a SCPhx polypeptide using the method of claim 11; and
3 b) combining said modulator with a physiologically acceptable carrier.

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